



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program : Third Semester – Fall 2021

Roll No.

Paper: Introduction to Computing

Course Code: GEN-2005

Time: 3 Hrs... Marks: 60

Q.1. Answer the following short questions: (6x5=30)

- i) Write equivalent binary of i) $(657)_{10}$ ii) $(45)_{10}$ and iii) $(871)_{10}$
- ii) Write decimal number of i) $(11001)_2$ ii) $(11001)_2$ and iii) $(1011)_{10}$
- iii) Define and write truth tables for XOR and OR logics for two inputs.
- iv) What is a computer program? Differentiate between a Virus and Antivirus programs
- v) What are the input and output (I/O) devices. Give a comparison of two I/O devices attached to a computer.
- vi) What is an algorithm? Give a difference between algorithm and a flow chart.

Answer the following questions. (3x10=30)

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| Q.2. | <p>Write C++ program to print the series and also display corresponding average and sum of numbers in the range from 100 to 200.</p> <p>Write a program to calculate area A and circumference C of a circle, where $A = \pi r^2$ and $C = 2\pi r$</p> | 8 |
| Q.3. | <p>Write program to read a,b and c values for a triangle and calculate area such that $A = \sqrt{s(s-a)(s-b)(s-c)}$, where $s = \frac{(a+b+c)}{2}$</p> <p>Write an algorithm or a program to calculate and print number and its square root. Take number from the user.</p> | 10 |
| Q.4. | <p>What is a main function in C++? Write general syntax and give one example of if selection and for loop.</p> <p>Write C++ program to print the series from 1 to 7 and also factorial of corresponding numbers.</p> <p>Write C++ program to print table of five.</p> | 12 |